

Karnal Bunt Detection Survey

Tilletia indica Mitra

Karnal Bunt (KB) is a fungal disease that affects wheat, durum wheat and triticale. Initially, the disease was discovered near Karnal, India in 1931. KB was first detected in the United States in 1996, within the state of Arizona in durum wheat seed. Subsequently, the disease was found in portions of Southern California and Texas. The disease has never been detected in Montana. KB thrives in cool, moist temperatures as the wheat is starting to head out.

Karnal Bunt spores are windborne and can spread through the soil. Spores have the ability to survive within the soil for several years. Grain can also become contaminated by equipment. Therefore, controlling the transportation of contaminated seed is essential in preventing the spread to major Montana production areas. In addition, early detection is essential if any type of control or eradication is to be attempted. Montana's participation in the annual karnal bunt survey is part of the early detection grid set out across the United States.



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Bunted Wheat

Montana's Crop Production for 2007

ITEM	BUSHELS	RANK	% U.S. Total
All Wheat	149,820,000	3	7.2
Winter Wheat	83,220,000	8	5.5
Durum Wheat	11,400,000	2	16.0
Other Spring	55,200,000	3	11.5
Barley	31,680,000	3	15.0

<http://usda.mannlib.cornell.edu/usda/current/CropProdSu/CropProdSu-01-12-2006.txt>

RESULTS: Montana continued to sample for KB during the 2008 harvest. A total of 138 samples were collected from 30 counties across Montana. The USDA Laboratory in Olney, Texas conducted

the testing. All samples tested negative for the presence of KB. This sampling is critical for wheat growers in Montana. It confirms our wheat is free from KB, ensuring access to export markets.

2007 Montana Wheat Production and Number of KB Samples

County	Harvested Acres	Production Bushels	# KB Samples	County	Harvested Acres	Production Bushels	# KB Samples
Chouteau	496,600	22,728,000	20	Fallon	41,900	1,038,000	1
Hill	416,800	12,664,000	13	Flathead	16,500	1,016,000	1
Roosevelt	326,600	8,488,000	9	Stillwater	38,700	1,001,000	0
Sheridan	299,700	7,231,000	8	Rosebud	37,800	980,000	1
Fergus	163,300	6,353,000	6	Wibaux	36,600	928,000	1
Liberty	248,400	6,003,000	5	Wheatland	37,000	919,000	1
Cascade	136,900	5,741,000	5	Prairie	32,800	892,000	1
Pondera	179,700	5,736,000	5	Musselshell	33,800	837,000	0
Teton	150,500	5,577,000	5	Madison	11,700	688,000	0
Daniels	261,400	5,467,000	5	Lewis and Clark	17,900	673,000	0
Valley	272,900	5,435,000	7	Golden Valley	23,900	665,000	0
McCone	209,400	5,146,000	6	Lake	11,300	656,000	0
Blaine	182,200	4,853,000	5	Custer	24,500	642,000	0
Big Horn	114,700	4,390,000	4	Beaverhead	7,600	608,000	0
Toole	228,500	4,378,000	5	Powder River	16,300	520,000	0
Dawson	163,100	4,164,000	3	Treasure	7,300	390,000	0
Richland	156,100	4,066,000	4	Petroleum	13,500	390,000	0
Phillips	120,200	3,081,000	3	Meagher	11,200	280,000	0
Judith Basin	78,600	2,805,000	2	Park	8,800	263,000	0
Gallatin	53,100	2,698,000	3	Carbon	4,600	130,000	0
Yellowstone	86,000	2,523,000	2	Jefferson	2,800	79,000	0
Garfield	82,200	2,147,000	2	Missoula	1,200	54,000	0
Glacier	122,500	1,819,000	4	Sweet Grass	1,900	52,000	0
Broadwater	34,300	1,270,000	1	Ravalli	1,700	42,000	0
Carter	37,600	1,167,000	0	Sanders	500	18,000	0
				State Total	5,063,100	149,691,000	138

2008 National Karnal Bunt Survey of Wheat Grain

Results from USDA Lab, Olney, TX

Sample No.	State	County	Results	Date Read	Sample No.	State	County	Results	Date Read
MT-101	MT	Big Horn	Negative	10/6	MT-170	MT	Hill	Negative	8/18
MT-102	MT	Big Horn	Negative	10/6	MT-171	MT	Hill	Negative	8/18
MT-103	MT	Big Horn	Negative	10/6	MT-172	MT	Hill	Negative	8/18
MT-104	MT	Big Horn	Negative	10/6	MT-173	MT	Hill	Negative	8/18
MT-105	MT	Blaine	Negative	8/8	MT-174	MT	Judith Basin	Negative	8/19
MT-106	MT	Blaine	Negative	8/8	MT-175	MT	Judith Basin	Negative	8/26
MT-107	MT	Blaine	Negative	8/8	MT-176	MT	Liberty	Negative	8/18
MT-108	MT	Blaine	Negative	8/8	MT-177	MT	Liberty	Negative	8/19
MT-109	MT	Blaine	Negative	8/8	MT-178	MT	Liberty	Negative	8/19
MT-110	MT	Broadwater	Negative	10/29	MT-179	MT	Liberty	Negative	8/26
MT-111	MT	Cascade	Negative	8/8	MT-180	MT	Liberty	Negative	8/26
MT-112	MT	Cascade	Negative	8/8	MT-181	MT	McCone	Negative	9/10
MT-113	MT	Cascade	Negative	8/8	MT-182	MT	McCone	Negative	9/10
MT-114	MT	Cascade	Negative	8/8	MT-183	MT	McCone	Negative	10/6
MT-115	MT	Cascade	Negative	8/11	MT-184	MT	McCone	Negative	10/8
MT-116	MT	Chouteau	Negative	8/8	MT-185	MT	McCone	Negative	10/29
MT-117	MT	Chouteau	Negative	8/11	MT-186	MT	McCone	Negative	10/29
MT-118	MT	Chouteau	Negative	8/8	MT-187	MT	Phillips	Negative	10/6
MT-119	MT	Chouteau	Negative	8/8	MT-188	MT	Phillips	Negative	10/6
MT-120	MT	Chouteau	Negative	8/8	MT-189	MT	Phillips	Negative	10/6
MT-121	MT	Chouteau	Negative	8/8	MT-190	MT	Pondera	Negative	8/18
MT-122	MT	Chouteau	Negative	8/8	MT-191	MT	Pondera	Negative	8/18
MT-123	MT	Chouteau	Negative	8/8	MT-192	MT	Pondera	Negative	8/18
MT-124	MT	Chouteau	Negative	8/11	MT-193	MT	Pondera	Negative	8/18
MT-125	MT	Chouteau	Negative	8/8	MT-194	MT	Pondera	Negative	8/18
MT-126	MT	Chouteau	Negative	8/8	MT-195	MT	Prairie	Negative	10/8
MT-127	MT	Chouteau	Negative	8/8	MT-196	MT	Richland	Negative	9/19
MT-128	MT	Chouteau	Negative	8/8	MT-197	MT	Richland	Negative	10/29
MT-129	MT	Chouteau	Negative	8/8	MT-198	MT	Richland	Negative	10/29
MT-130	MT	Chouteau	Negative	8/8	MT-199	MT	Richland	Negative	10/29
MT-131	MT	Chouteau	Negative	8/11	MT-200	MT	Roosevelt	Negative	9/5
MT-132	MT	Chouteau	Negative	8/11	MT-201	MT	Roosevelt	Negative	9/10
MT-133	MT	Chouteau	Negative	8/11	MT-202	MT	Roosevelt	Negative	9/19
MT-134	MT	Chouteau	Negative	8/11	MT-203	MT	Roosevelt	Negative	9/10
MT-135	MT	Chouteau	Negative	8/11	MT-204	MT	Roosevelt	Negative	9/19
MT-136	MT	Daniels	Negative	10/8	MT-205	MT	Roosevelt	Negative	10/8
MT-137	MT	Daniels	Negative	9/10	MT-206	MT	Roosevelt	Negative	10/6
MT-138	MT	Daniels	Negative	10/6	MT-207	MT	Roosevelt	Negative	10/8
MT-139	MT	Daniels	Negative	10/6	MT-208	MT	Roosevelt	Negative	10/8
MT-140	MT	Daniels	Negative	10/8	MT-209	MT	Rosebud	Negative	10/8
MT-141	MT	Dawson	Negative	9/5	MT-210	MT	Sheridan	Negative	9/10
MT-142	MT	Dawson	Negative	9/10	MT-211	MT	Sheridan	Negative	9/10
MT-143	MT	Dawson	Negative	10/8	MT-212	MT	Sheridan	Negative	9/10
MT-144	MT	Fallon	Negative	10/8	MT-213	MT	Sheridan	Negative	10/29
MT-145	MT	Fergus	Negative	8/26	MT-214	MT	Sheridan	Negative	10/6
MT-146	MT	Fergus	Negative	8/26	MT-215	MT	Sheridan	Negative	10/6
MT-147	MT	Fergus	Negative	8/26	MT-216	MT	Sheridan	Negative	10/6
MT-148	MT	Fergus	Negative	9/10	MT-217	MT	Sheridan	Negative	10/29
MT-149	MT	Fergus	Negative	9/5	MT-218	MT	Teton	Negative	8/11
MT-150	MT	Fergus	Negative	9/5	MT-219	MT	Teton	Negative	8/11
MT-151	MT	Flathead	Negative	10/29	MT-220	MT	Teton	Negative	8/18
MT-152	MT	Gallatin	Negative	10/29	MT-221	MT	Teton	Negative	8/18
MT-153	MT	Gallatin	Negative	10/29	MT-222	MT	Teton	Negative	8/19
MT-154	MT	Gallatin	Negative	10/29	MT-223	MT	Toole	Negative	8/18
MT-155	MT	Garfield	Negative	10/8	MT-224	MT	Toole	Negative	8/19
MT-156	MT	Garfield	Negative	10/8	MT-225	MT	Toole	Negative	8/26
MT-157	MT	Glacier	Negative	8/26	MT-226	MT	Toole	Negative	9/5
MT-158	MT	Glacier	Negative	9/10	MT-227	MT	Toole	Negative	9/19
MT-159	MT	Glacier	Negative	9/10	MT-228	MT	Valley	Negative	10/8
MT-160	MT	Glacier	Negative	9/19	MT-229	MT	Valley	Negative	10/8
MT-161	MT	Hill	Negative	8/8	MT-230	MT	Valley	Negative	10/8
MT-162	MT	Hill	Negative	8/8	MT-231	MT	Valley	Negative	10/8
MT-163	MT	Hill	Negative	8/8	MT-232	MT	Valley	Negative	10/6
MT-164	MT	Hill	Negative	8/8	MT-233	MT	Valley	Negative	10/6
MT-165	MT	Hill	Negative	8/8	MT-234	MT	Valley	Negative	10/6
MT-166	MT	Hill	Negative	8/8	MT-235	MT	Wibaux	Negative	10/8
MT-167	MT	Hill	Negative	8/11	MT-236	MT	Yellowstone	Negative	10/6
MT-168	MT	Hill	Negative	8/11	MT-237	MT	Yellowstone	Negative	10/6
MT-169	MT	Hill	Negative	8/11	MT-238	MT	Wheatland	Negative	10/6